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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/115,229 07/14/98 SCHEELLEN

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WASHINGTON DC 20005-3955

EXAMINER

DYE, R

ART UNIT	PAPER NUMBER
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1772

19

DATE MAILED:

08/11/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/115,229

Applicant(s)
Schefflen et al.

Examiner
Rena L. Dye

Group Art Unit
1772



☒ Responsive to communication(s) filed on May 30, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-17 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-17 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-9 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenkins et al. (5,049,411).

Jenkins et al. teaches a high density polyethylene (HDPE) composition comprising from about 50 to about 95 weight percent of HDPE and from about 1 to about 30 weight percent of a filler which may be talc (Abstract). The term high density generally refers to densities in the range of about 0.94 to 0.965 g/cm³. The term polyethylene as used herein includes homopolymers of ethylene and copolymers of at least about 85 weight percent ethylene with up to about 15 weight percent of one or more C₃ to C₁₀ alpha-olefins, such as 1-butene, 1-hexene, etc. Preferably the copolymers include from about 0.1 to about 3 weight percent of the alpha-olefin comonomer (column 1, lines 56-66). The talc is employed as a filler in the composition. In particular when used with HDPE the talc is preferably in the form of particles of a size in the range of about 0.5 to 50 microns. The talc is employed in amounts ranging from about 1 to about 30 weight percent.

Jenkins et al. further teach shaping of the composition into an article such as a packaging

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material, or an envelope (column 1, lines 32-36). The composition is formed into a seamless tube by extrusion and then later formed into an envelope (column 2, line 50 to column 3, line 10).

Since Jenkins et al. teaches that which appears to be identical to that recited in the present claims, with respect to HDPE, it is the Examiner's position that the recited melt flow would be inherent. The recited particle size distribution between 0.2 and 15 microns, and mean particle size between 1 and 5 microns would be well within the disclosed particle size range taught by Jenkins et al.

Since Jenkins et al. teach talc merely used as a filler, it would have been obvious to one having ordinary skill in the art to have used less filler if e.g. manufacturing costs were not an issue. Since Jenkins et al. teaches talc having a lower end range of 1%, the Examiner would like to note that only a very slight decrease in the weight % of talc would fall within the presently claimed range, i.e. .94 wt%, .95 wt%, etc.

The recited "talc is added in an amount effective to increase a creep resistance of said composition" would be met by the polyethylene composition made obvious by Jenkins et al.

3. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wooster et al. (5,631,069).

Wooster et al. teaches a polyethylene composition used to mold articles. The molded material is comprised of high molecular weight linear polyethylene and a substantially linear ethylene/ α -olefin interpolymers. The material has a density in the range of about 0.923 to

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about 0.95 g/cm^3 and has excellent impact resistance (Abstract). The polyethylene material can be molded into articles, such as pipes, tubes, or molded parts (column 1, lines 23-31). The molded material can be made produced from blends of a) high molecular weight high density polyethylene (HDPE) and b) linear low density polyethylene (LLDPE), VLDPE, etc. (column 4, lines 1-11).

Both HDPE and LLDPE are prepared in a similar manner where ethylene is copolymerized with an α -olefin such as butene or hexene (column 4, lines 47-62). Although not generally required the molded material can also contain additives to enhance antiblocking and coefficient of friction characteristics including talc (column 14, lines 13-29). The molded polyethylene material can be produced by known processes, for example by casting processes, compression molding, or preferably, by extrusion (column 13, lines 45-48). Although not expressly taught, it is the Examiner's position that the teaching of injection molding is a well known and conventional process for making pipes, and would have been an obvious method for making the disclosed articles.

Since Wooster et al. teaches that it is known to include additives, such as talc, in molded polyethylene compositions, it would have been obvious to one having ordinary skill in the art to have included the talc in an effective amount to have imparted antiblocking and coefficient of friction characteristics. The determination of such amount of talc to impart such properties is deemed to be routine optimization and well within the level of skill of the ordinary artisan. Furthermore, it would have been obvious to one having ordinary skill in the art to have used more or less of the talc additive if manufacturing costs were of an issue.

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Although Wooster et al. specifically fails to teach the molding of pipe couplings from the polyethylene composition, pipe couplings are *prima facie* obvious over the teaching of pipe. Pipes and couplings are designed to work in the same system, and a pipe may well be used as a coupling, i.e. if it is used as an intermediate between two pipes it has "coupled" the two pipes.

Since Wooster et al. teaches that which appears to be identical to that recited in the present claims, with respect to the presently claimed polyethylene, it is the Examiner's position that the recited melt flow would be inherent. The recited particle size distribution between 0.2 and 15 microns, and mean particle size between 1 and 5 microns would be well within the teaching of the reference since Wooster et al. teaches talc as an additive.

The recited "talc is added in an amount effective to increase a creep resistance of said composition" would be met by the polyethylene composition made obvious by Wooster et al.

Response to Arguments

4. Applicant's arguments filed May 30, 2000 have been fully considered but they are not persuasive.

In response to Applicant's arguments regarding the Jenkins et al. reference, it is the Examiner's position that since Jenkins teaches talc merely as a filler, it would have been obvious to one having ordinary skill in the art to have varied the amount of filler used. Although Applicant argues that Jenkins et al. comprises at least 1.05 part of talc per 100 parts by weight polyethylene, it is the Examiner's position that the recited "an amount of less than 1 part per 100

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parts by weight of polyethylene” would overlap with the teaching of about 1-30 weight percent of a filler of talc as taught by Jenkins et al. The filler content taught by Jenkins et al. appears to be based on 100% of the polyethylene/polyisobutylene composition. Therefore, it is noted that the polyethylene or polyethylene-based composition could include additional components such as the polyisobutylene taught by Jenkins et al. Therefore, it is the Examiner’s position that the polyethylene in which the weight percent of talc is based on could include additional components since the Examiner interprets the recited “polyethylene” to include additional components or that which is the same as “comprising” language. Furthermore, it is the Examiner’s position that the weight percent talc based on polyethylene by itself or polyethylene having additional components in the composition is met by and would slight overlap in either instance with that which is taught by Jenkins et al.

Nevertheless, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made, since it has been held that choosing the overlapping portion, of the range taught in the prior art and the range claimed by the applicant, has been held to be a *prima facie* case of obviousness, see *In re Malagari*, 182 USPQ 549.

It has been held that a range of “more than 5%” would overlap a disclosure of 1-5%, *In re Wertheim*, 541 F. d. 257, 191 USPQ (CCPA 1976), *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d. 1934 (Fed. Cir. 1990).

There does not appear to be any distinction in the properties of the article the numbers are so close, they appear to overlap. In any event these values would be minor obvious variations and

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expected to have the same properties. *See Titanium Metals Corporation vs Banner*, 778 F. d. 775, 227 USPQ 773 (Fed. Cir. 1985).

With respect to Applicant's arguments regarding the Wooster et al. reference, the Examiner maintains the position that since Wooster et al. teaches that it is known to include additives, such as talc, in molded polyethylene compositions, it would have been obvious to one having ordinary skill in the art to have included the talc in an effective amount to have imparted antiblocking and coefficient of friction characteristics. The determination of such amount of talc to impart such properties is deemed to be routine optimization and well within the level of skill of the ordinary artisan. Accordingly, the properties of the polyethylene composition as taught by Wooster et al. would have been recognized as result-effective variables by one of ordinary skill in the art, depending on the antiblocking and coefficient of friction characteristics desired. Optimization of such properties would have been well within the ordinary skill in the art. *In re Boesch*, 617 F.2d 272, 276, 205 ISPQ 215, 219 (CCPA 1980). Furthermore, the obvious product taught by Wooster et al. and Jenkins et al. would meet the presently recited "wherein talc is added in an amount effective to increase a creep resistance of said composition (claims 16-17).

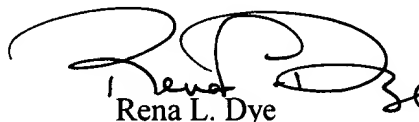
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Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. Dye whose telephone number is (703) 308-4331.


Rena L. Dye
Primary Examiner
Tech Center 1700

R. Dye
August 7, 2000